

Statement of John R. Melcher,

Deputy Executive Director,
Greater Harris County 9-1-1 Emergency Network
Houston, Texas

on behalf of the

National Emergency Number Association (NENA),

Association Of Public-Safety Communications Officials International,
Inc. (APCO),

and the

National Association Of State
Nine-One-One Administrators (NASNA)

before the

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

SUBCommittee on Communications

UNITED STATES SENATE

“9-1-1 Issues”

October 16, 2001

October 16, 2001

Mr. Chairman and members of the Committee, thank you very much for providing me the opportunity to appear before you today. My name is John Melcher, and I am the Deputy Executive Director of the Greater Harris County Emergency 9-1-1 Network. Our Network is the third largest 9-1-1 system in the country and provides emergency number service to approximately 4.2 million citizens in the Houston metropolitan area. In addition to representing our Network, I am here today on behalf of the National Emergency Number Association (NENA) as its First Vice-President, as well as the Association of Public-Safety Communications Officials-International, Inc. (APCO), and the National Association of State Nine-One-One Administrators (NASNA). Collectively, these associations represent state and local government emergency 9-1-1 communications centers (also known as "Public Safety Answering Points" or "PSAPs") throughout the country. The three Associations and their members have worked tirelessly to promote wireless enhanced 9-1-1 capability, and I am proud to be here today on their behalf and on behalf of the approximately 7,400 PSAP's, over 100,000 call-takers, and thousands of 9-1-1 PSAP managers across the United States.

On September 11, NENA, with support from APCO, NASNA and many other public and private interests, released its first Report Card to the Nation (RCN), the first nation-wide effort ever conducted by the public safety community to analyze the factors that make 9-1-1 successful today, and will make it successful tomorrow. The RCN reports that more than 190 million telephone calls are made to 9-1-1 each year, or over 500,000 calls each day.

Since over 97% of the nation's population is covered by some form of 9-1-1, I think that it is accurate to report that 9-1-1 has become part of our culture and adds to our quality of life. Generally, the American public both depends upon, and holds in good standing, our emergency communication systems. Indeed, the RCN notes that nearly 75% of the national population characterizes the system as either good or excellent. In terms of the "report card," that's a good grade, but serious challenges remain.

Technology is creating both opportunities and obstacles. Of the 190 million 9-1-1 calls to which I just referred, over 50 million of those are wireless calls – and, that number is growing. The Cellular Telecommunications and Internet Association (CTIA) estimates that there were nearly 110 million wireless telephones in the country by the end of last year. Wireless calls to 9-1-1 represent approximately 27% of our national 9-1-1 call volume, and that percentage is much higher in many metropolitan areas. In fact, the Harris County Sheriff's Department, in Houston, Texas, reports that wireless calls to 9-1-1 now exceed 50% of their total call volume. That means over half their emergency calls-for-service lack the features of an enhanced 9-1-1 system.

Quite frankly, according to the Report Card, the grade assigned to wireless 9-1-1 is incomplete. While wireless carriers are mandated to provide the services that the American public has come to expect – what we call “Enhanced 9-1-1” – they have not begun to do so and most will clearly fail to meet the FCC’s October 1 deadline.

A little over ten years ago, nearly all incoming 9-1-1 calls to PSAPs were from wireline telephones, and most provided the call-taker with a call-back number (Automatic Number Identification or ANI) and automatic location information (ALI) for the caller. Additionally, 9-1-1 calls are selectively routed to the appropriate PSAP that responds to the calling party’s location. The provision of ANI, ALI and selective routing is known as Enhanced 9-1-1 or E9-1-1. Armed with this information, the 9-1-1 call-taker can quickly and accurately dispatch police, fire, ambulance and other appropriate public safety agency personnel to emergency locations.

Historically, however, that’s not been the case with a mobile caller. The mobile nature of the service inherently makes the delivery of enhanced 9-1-1 more difficult. And, without accurate location information for such calls, the 9-1-1 call-taker must make a verbal inquiry regarding the caller’s location – generally, a lengthy investigation, thus adding to the time that must be spent on each call, and slowing down response time by precious minutes, sometimes hours. All too often, wireless 9-1-1 callers do not know exactly where they are, or they are unable to describe their location with sufficient clarity or accuracy.

Just a few weeks ago, Sean Cospel died when his car ran off a cliff near Bear Mountain in New York. His buddy Jason Learn called 9-1-1 from his cell phone. Almost six hours after his first call, Jason was able to flag down a motorist on Route 9W after crawling 400 feet up a 45 degree embankment, while suffering from a concussion and a broken arm. Reportedly, he could hear the New Jersey State Police helicopter searching while his friend lay dying. In other cases, callers hang up, or their wireless calls are “dropped” before they can provide necessary information regarding the emergency or its location. These problems are every day occurrences in PSAPs across the nation, and every night countless dispatchers continue to wake up in a cold sweat.

Even when wireless 9-1-1 callers can provide accurate verbal descriptions of their locations, the absence of location information can still wreak havoc with a PSAP’s ability to respond efficiently to emergencies. For example, it is not at all unusual for some of my largest agencies (averaging 4,000 – 5,000 calls a day) to receive up to 50 or more calls reporting the same automobile accident. Finding such an emergency is not the problem. The problem is that we don’t know in advance that those calls are all about the same event, and we therefore need to expend scarce resources to answer each and every call. In the meantime, the PSAP’s incoming lines can become clogged and we run the risk that there may be another caller waiting in line to report an entirely different emergency.

These two conditions—lengthy investigations to determine location and numerous calls on the same incident—have stressed and taxed the nation’s dispatchers and call center managers beyond imagination. Unintentionally, and unfortunately, these dispatchers and call-takers are giving air traffic controllers a real run for their money in the stress department. Trust me, these are bragging rights we’d rather do without.

Fortunately there are major efforts are underway in our community to address these serious problems, though much more is still to be done. Nearly ten years ago, APCO, NENA, and others identified wireless E9-1-1 as a critical issue and brought it to the FCC’s attention. My own state of Texas and the Associations I’m representing today, among others, were a major part of that effort. The Commission responded with an appropriate proceeding that began in 1994, and resulted in rules adopted in 1996. Today – over five years later – we still do not have wireless Enhanced 9-1-1. In our RCN report, we estimate that less than 50% of the nation’s population enjoys the first level of wireless 9-1-1 service, or Phase One. Fortunately, that figure is growing. Still, we await Phase Two.

Which brings us to the most important of missed deadlines. October 1, 2001, was not the starting point we envisioned for so many years. Implementation of Phase II of the FCC rules is now further delayed. Not one PSAP has actually begun to see the real benefits of wireless E9-1-1.

Many wireless carriers have fallen behind this schedule and have been granted waivers to the deployment and accuracy requirements involved. Some appear to be trying to proactively minimize the impact of their waiver requests. It is perhaps an understatement to say that the waivers are quite troubling to the public safety community. A great deal of time has been spent on adopting and implementing wireless E9-1-1 rules – time and effort spent by all parties, both public and private.

The requirements in the FCC’s rules are clearly achievable. The technologies available today to locate mobile callers may not be perfect, but they have demonstrated the capability of meeting the FCC’s standards. Sure, something better will always come along tomorrow. But the public safety community is seriously concerned that if we keep delaying present performance based on future promise, we will never have anything workable upon which to improve. We simply cannot allow “the perfect” to be the enemy of “the good.” When was the last time your mobile call was dropped due to a failed cell-to-cell hand-off? Are *all* of your calls perfectly clear? Carriers have never waited on technology to be absolutely perfect prior to its deployment, why are they waiting now? While we acknowledge that there are many factors that affect deployment today, it’s time to move on.

Of course PSAPs also have a responsibility for making wireless E9-1-1 a reality. 9-1-1 communication centers must have call processing equipment capable of

receiving and utilizing the location information involved. That also includes the ability to process geographic based data, though the latter does not necessarily imply the installation of sophisticated Geographic Information Systems (GIS). Ultimately, how a 9-1-1 call is processed is truly the responsibility of the public safety community.

The bottom line is that many PSAPs are now or will soon be ready to receive and process Phase II or location information from wireless carriers. The APCO initiated, and now a joint APCO /NENA initiative, "Project Locate" has identified 29 of its 50 model cities that have requested Phase II service. Those requests, along with others, include cities like Los Angeles, Kansas City, San Francisco, Chicago, Houston, Washington, DC, and Allen, VA. Other requests include counties and states like Spartanburg County, SC, Rockdale County, GA, Harris County, TX, Hamilton County, OH, St. Tammany Parish, LA, Stark County, ND, six counties in Oregon, Jackson County, MS, Gallatin County, MT, York County, VA, and the entire states of Connecticut, Rhode Island, Minnesota, and New Jersey.

Of the nations PSAP's tasked with taking wireless 9-1-1 calls, over 75% are either capable, or in the process of becoming capable, of accepting Phase One call information from wireless carriers.

Others, of course, are not as far along, either because of funding constraints or the need for local exchange telephone company network upgrades. Many, we're told, are reluctant to expend scarce resources for Phase II readiness until the carriers themselves demonstrate that they are proceeding towards Phase II deployment. The public safety community is working hard, however, to improve E9-1-1 readiness on the part of all PSAPs, to say nothing of the public safety entities that have already placed requests. As I just described, the latter represents a significant population across this country. Those PSAPs are ready and so are the citizens they represent. Each day of delay impacts the lives of the dispatchers and of 9-1-1 callers!

Much work remains to be done. The RCN identified over 230 counties that don't even have 9-1-1 service. Most 9-1-1 infrastructure in this country continues to ride on yesterday's analog technology. Switching systems are rarely redundant. New York City maintained their system through a catastrophic chain of events, but no one seemed to notice that they did not lose one single 9-1-1 call for service. Unfortunately, their system's redundancy is rare in our country.

The challenges today are many for 9-1-1, and wireless is only part of that - though a significant part. Technology is expanding the way people communicate. The 9-1-1 calls of the near future will not be limited to a traditional telephone. Voice over the Internet, automatic crash notification via telematics devices, hand held wireless products and a host of new and emerging communications technologies require our community to assess and address non-traditional access to emergency services. Our public will expect those efforts to occur in an effective and timely way. In the end, our common goal must be the ability to locate every 9-1-1 call, regardless of

how it's placed. With so much work to do in these arenas, it's time to end the delays and start saving lives!

There are those who would assert that wireless telephones are already providing valuable emergency access to 9-1-1, and they would be right. But what makes our country great is our natural tendency to raise our expectations when it comes to saving lives and reducing pain and suffering. The opportunity to use this technology to save lives is here today. It's at the doorstep of every American that uses a wireless telephone. I'm sure that this Committee agrees with that, and we welcome your support and encouragement.

Thank you for the opportunity to testify on this extremely important subject.